

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

WSOU INVESTMENTS, LLC, d/b/a  
BRAZOS LICENSING AND  
DEVELOPMENT,

Plaintiff,

v.

TP-LINK TECHNOLOGY CO., LTD,

Defendant.

**CASE NO. 6:20-cv-01014**

**JURY TRIAL DEMANDED**

**COMPLAINT**

Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development (“Plaintiff” or “Brazos”), by and through its attorneys, files this Complaint for Patent Infringement against defendant TP-LINK Technology Co., Ltd. (“Defendant” or “TP-Link”) and hereby alleges as follows:

**I. NATURE OF ACTION**

1. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1 *et seq.*, including §§ 271, 281, 283, 284, and 285. This action is brought to end Defendant’s unauthorized and infringing manufacture, use, sale, offering for sale, and/or importation of methods and products incorporating Brazos’s patented invention.

2. Brazos is the owner of all rights, title, and interest in and to US Patent No. 7,751,423 (the “’423 Patent” or the “Patent”) including all rights to recover for all past and future infringement thereof.

3. Upon information and belief, Defendant has been and currently is infringing, contributing to the infringement of, and/or inducing the infringement of Brazos’s Patent, by,

among other things, making, using, selling, importing, and/or offering for sale, within the territorial boundaries of the United States and the State of Texas, products that are covered by one or more claims of Brazos's Patent and inducing such conduct by others.

4. Defendant manufactures, provides, sells, offers for sale, imports, and/or distributes Infringing Products (as defined herein) and services; and/or induces others to make and use its Infringing Products and services in an infringing manner; and/or contributes to the making and use of Infringing Products and services by others, including its customers, who directly infringe the Patent.

## **II. THE PARTIES**

5. Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development is a limited liability corporation organized and existing under the laws of Delaware, with its principal place of business at 605 Austin Avenue, Suite 6, Waco, Texas 76701.

6. Upon information and belief, Defendant TP-LINK Technology Co., Ltd. is a corporation organized and existing under the laws of China, with a place of business located at South Building, No. 5 Keyuan Road, Science and Technology Park, Nanshan District, Shenzhen, Peoples Republic of China.

7. TP-LINK Technology Co., Ltd. may be served with process by serving the Texas Secretary of State, James E. Rudder Building, 1019 Brazos Street, Austin, Texas 78701, as its agent for service because it engages in business in Texas but has not designated or maintained a resident agent for service of process in Texas as required by statute. This action arises out of that business.

8. Defendant manufactures and distributes electronics. Defendant, either itself and/or through the activities of its subsidiaries or agents, makes, uses, sells, offers for sale, and/or imports

throughout the United States, including within this District, computer networking products that infringe the Asserted Patent, defined below.

### **III. JURISDICTION AND VENUE**

9. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a). Alternatively, this Court has jurisdiction over Defendant under Fed. R. Civ. P. 4(k)(2) (“Federal Claim Outside State-Court Jurisdiction”).

10. This Court has specific and general personal jurisdiction over TP-Link pursuant to due process and/or the Texas Long Arm Statute, Tex. Civ. Prac. & Rem. Code § 17.042, because (1) TP-Link has committed and continues to commit acts of patent infringement, including acts giving rise to this action, within the State of Texas and this Judicial District; (2) TP-Link has committed and continues to commit acts of patent infringement in the State of Texas, including making, using, offering to sell, and/or selling accused products in Texas, and/or importing accused products into Texas, inducing others to commit acts of patent infringement in Texas, and/or committing at least a portion of any other infringements alleged herein.

11. The Court’s exercise of jurisdiction over TP-Link would not offend traditional notions of fair play and substantial justice because TP-Link has established minimum contacts with the forum. For example, on information and belief, TP-Link has committed acts of infringement in this Judicial District, directly and/or through intermediaries, by, among other things, making, using, offering to sell, selling, and/or importing products and/or services that infringe the Asserted Patent, as alleged herein. TP-Link has purposefully and voluntarily placed infringing products into the stream of commerce by shipping infringing products through established distribution channels into the State of Texas, knowing or expecting that the Infringing Products would be shipped into Texas.

12. Upon information and belief, TP-Link has continuous and systematic business contacts with the State of Texas. TP-Link, directly and/or through affiliates and/or intermediaries, conducts its business extensively throughout the State of Texas, by shipping, importing, manufacturing, distributing, offering for sale, selling, and/or advertising its products and services in the State of Texas and this Judicial District. TP-Link interacts with subsidiaries, distributors, resellers and/or customers who sell the infringing products into Texas, knowing or expecting that these subsidiaries, distributors, resellers and/or customers will then sell the Infringing Products into the State of Texas, either directly or through intermediaries.

13. Venue in the Western District of Texas is proper pursuant to 28 U.S.C. §§ 1391 (c)(3) which provides that “a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants.”

14. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b). TP-Link has transacted business in this Judicial District and has committed acts of direct and indirect infringement in this Judicial District by, among other things, importing, offering to sell, and selling products that infringe the Patent.

15. Upon information and belief, TP-Link designs, manufactures, uses, imports into the United States, sells, and/or offers for sale in the United States products that infringe the Asserted Patent, directly and or through intermediaries, as alleged herein. TP-Link markets, sells, and/or offers to sell its products and services, including those accused herein of infringement, to actual and potential customers and end-users located in the State of Texas and in this Judicial District, as alleged herein.

**COUNT ONE**  
**INFRINGEMENT OF U.S. PATENT NO. 7,751,423**

16. Brazos re-alleges and incorporates by reference the preceding paragraphs 1-15 of this Complaint.

17. On July 6, 2010, the U.S. Patent & Trademark Office duly and legally issued U.S. Patent No. 7,751,423, entitled “Scheduler.”

18. Brazos is the owner of all rights, title, and interest in and to the ’423 Patent, including the right to assert all causes of action arising under the ’423 Patent and the right to any remedies for the infringement of the ’423 Patent.

19. For example, claim 11 of the ’423 Patent states:

A method, comprising:

receiving a first set of quality values each representing a quality of communication channel for each of the user nodes of a plurality of user nodes;

receiving a second set of predetermined delay factors each representing a tolerance to a time delay of at least some of the user nodes;

selectively determining which of the user nodes is to be granted access to a slot of the communication channel based on a combination of the quality values and the delay factors,

where an indication of the channel quality is a data transmission rate, and

wherein proportional fair scheduling is performed by selecting, for each slot, which user node has the highest ratio of an instantaneous data transmission rate to an average data transmission rate.

20. TP-Link’s Accused Products meet every limitation of claim 11 of the ’423 Patent, as well as other claims of the ’423 Patent.

21. TP-Link makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this Judicial District, networking products such as High-Speed Cable Modems, wireless routers, ADSL, range extenders, routers and switches, and other devices like IP

cameras, powerline adapters, print servers, media converters, wireless adapters, power banks, mobile phones, and SMART home technology devices.

22. TP-Link makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this Judicial District, products that use features for scheduling data transmissions in a communication network, including but not limited to TP-Link AC5400 Gaming Router and products that operate in a substantially similar manner (collectively, the “Accused Products”).

23. The Accused Products are capable of providing higher speed data transmissions, creating an edge in comparison to other routers used for gaming. The Accused Products also are capable of providing Air-Time Fairness to balance the request of every device with speed and precision.<sup>1</sup>

24. The Accused Products are capable of receiving a first set of quality values each representing a quality of communication channel for each of the user nodes of a plurality of user nodes.

25. The Accused Products are capable of providing users the ability to prioritize activities as per their requirements. All the activities such as chatting, streaming, and gaming happen over different multimedia networks. Informing the router about prioritizing activities helps the Router Access Point to receive an estimated indication of delay factors for various nodes.<sup>2</sup>

26. The Accused Products are capable of selectively determining which of the user nodes is to be granted access to a slot of the communication channel based on a combination of the quality values and the delay factors. TP-Link Airtime Fairness allows users to have optimal

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<sup>1</sup> <https://www.tp-link.com/us/home-networking/wifi-router/archer-c5400x/> at 1.

<sup>2</sup> [https://static.tp-link.com/2020/202001/20200115/1910012631\\_Archer%20C5400X%20%201.0\\_UG\\_REV1.1.0.pdf](https://static.tp-link.com/2020/202001/20200115/1910012631_Archer%20C5400X%20%201.0_UG_REV1.1.0.pdf) at 56.

speed based on the received wireless signal quality and the delay factor associated with the prioritization. Based on the received delay factor and quality of signals, Airtime Fairness is capable of allocating a different number of time slots to older versus newer devices. With Airtime Fairness enabled, the newer AC devices get more timeslots than the older devices, which helps in enhancing the performance of the TP-Link Router.<sup>3</sup>

27. The Accused Products are capable of providing an indication of the channel quality in the form of a data transmission rate. Air Time Fairness provides the balance for all the nodes in the router ecosystem. Channel quality is based on the transmission rates of the different client devices. For example, an 802.11g client will have a different transmission rate (i.e., channel quality) than an 802.11n client.<sup>4</sup>

28. The Accused Products are capable of performing proportional fair scheduling by selecting, for each slot, which user node has the highest ratio of an instantaneous data transmission rate to an average data transmission rate. The Accused Products utilize Airtime Fairness. Airtime Fairness is equivalent to Proportional Fairness. Proportional Fairness means that individual throughput of each node is proportional to its data rate capability and on the calculation of a proportional fair share in throughput of a node. Similarly, in Proportional Fair Scheduling, the ratio for the size of data transmitted to the expected size of data transmitted is considered for the scheduling of time slots. Also, Wireless Channel Quality indicators such as CCQ Transmit provide a ratio of the adequate transmission bandwidth with an actual bandwidth (i.e., a ratio of an instantaneous data transmission rate to an average data transmission rate).<sup>5</sup>

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<sup>3</sup> <https://www.tp-link.com/us/home-networking/wifi-router/archer-c5400x/>;  
<https://community.tp-link.com/us/home/stories/detail/203> at 1.

<sup>4</sup> <https://www.tp-link.com/us/support/faq/2095/> at 1.

<sup>5</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6264109/> at 2, 4 and 9;  
[https://static.tp-link.com/2019/201912/20191231/1910012582\\_PharOS%20User%20Guide.pdf](https://static.tp-link.com/2019/201912/20191231/1910012582_PharOS%20User%20Guide.pdf) at 46.

29. TP-Link has received notice and actual or constructive knowledge of its infringement of the '423 Patent no later than the date of service of this Complaint.

30. Since at least the date of service of this Complaint, through its actions, TP-Link has actively induced product makers, distributors, retailers, and/or end users of the Accused Products to infringe the '423 Patent throughout the United States, including within this Judicial District, by, among other things, advertising and promoting the use of the Accused Products in various websites, including providing and disseminating product descriptions, operating manuals, and other instructions on how to implement and configure the Accused Products. Examples of such advertising, promoting, and/or instructing include web advertising,<sup>6</sup> user guides,<sup>7</sup> and support forum postings.<sup>8</sup>

31. TP-Link was and is aware that the normal and customary use by end users of the Accused Products infringes the '423 Patent. TP-Link's inducement is ongoing.

32. Brazos has suffered damages as a result of TP-Link's direct and indirect infringement of the '423 Patent and is entitled to an amount adequate to compensate for TP-Link's infringement, but in no event less than a reasonable royalty for the use made of the invention by TP-Link, together with interest and costs as fixed by the Court.

33. Defendant continued to make, use, sell and/or import Infringing Products, to induce others to engage in such conduct, and/or to contribute to others engaging in such conduct despite knowing that its actions constituted infringement of a valid patent.

34. Accordingly, Defendant acted egregiously and/or knowingly or intentionally when it infringed the '423 Patent.

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<sup>6</sup> <https://www.tp-link.com/us/home-networking/wifi-router/archer-c5400x/>.

<sup>7</sup> [https://static.tp-link.com/2020/202001/20200115/1910012631\\_Archer%20C5400X%20%201.0\\_UG\\_REV1.1.0.pdf](https://static.tp-link.com/2020/202001/20200115/1910012631_Archer%20C5400X%20%201.0_UG_REV1.1.0.pdf).

<sup>8</sup> <https://community.tp-link.com/us/home/stories/detail/203>.



#### IV. JURY DEMAND

35. Plaintiff Brazos hereby demands a jury on all issues so triable.

#### V. REQUEST FOR RELIEF

WHEREFORE, Plaintiff Brazos respectfully requests that the Court:

- (a) enter judgment that TP-Link infringes one or more claims of the '423 Patent literally and/or under the doctrine of equivalents;
- (b) enter judgment that TP-Link has induced infringement and continues to induce infringement of one or more claims of the '423 Patent;
- (c) enter judgment that TP-Link has contributed to and continues to contribute to the infringement of one or more claims of the '423 Patent;
- (d) award Brazos damages, to be paid by TP-Link in an amount adequate to compensate Brazos for such damages, together with pre-judgment and post-judgment interest for the infringement by TP-Link of the '423 Patent through the date such judgment is entered in accordance with 35 U.S.C. § 284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. § 284;
- (e) declare this case exceptional pursuant to 35 U.S.C. § 285; and
- (f) award Brazos its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

Dated: October 31, 2020

Respectfully submitted,

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